

## REMARKS

At present, the pending claims are 1-11, 13-21, and 24-25.

Claim 1 and 15 are amended.

Claim 13 has been canceled. No new matter is added by this change.

Claims 1-11, 13 and 14 are withdrawn without prejudice.

Claims 15-21, 24 and 25 stand rejected.

### I. Rejection under 35 U.S.C. § 103(a) Over the Combination of Lawlor, Miranda, and Chen

The Examiner has rejected claims 15-21, 24 and 25 as being unpatentable over the disclosure of 35 U.S.C. § 103(a) as being unpatentable over WO 02/34221 to Lawlor ("Lawlor"), taken in view of U.S. Patent Number 5,656,286 of Miranda ("Miranda") in view of U.S. Patent Application Publication No. 2003/0129148 of Chen ("Chen"). The applicant respectfully traverses the rejection.

Lawlor discloses a substantive coating for the teeth that can prophylactically or therapeutically treat the surfaces of the oral cavity by sustained release of an oral care agent. The Lawlor composition includes a silicone resin, a silicone gum and a polydimethylsiloxane fluid. Miranda teaches a transdermal solubility-based drug delivery system that permits alternation of drug saturation concentration for drugs to be delivered through the skin. The transdermal drug delivery system of Miranda is composed of a pressure sensitive adhesive, such as polysiloxane adhesives "usually prepared" by cross-linking a gum with a resin. Miranda is silent on compositions for tooth whitening. Chen teaches a dental bleach that can be applied by use of a dental tray.

Contrary to the Examiner's assertion, the combination of Lawlor/Miranda/Chen does not render the claimed invention obvious. First, none of the references alone or in combination discusses a whitening composition that includes a hydrophobic polymer that is a condensation product of a silicone resin and an organosiloxane, wherein the

polymer is comprised of about 50 to 70 parts silicone resin to 30 to 50 parts organosiloxane polymer. Thus, the reference combination proposed by the Examiner falls short, as each element of the invention as claimed is not taught or suggested in the references.

Moreover, a person of skill in the art would not have been motivated to make the combination suggested by the Examiner, nor would he have had the a reasonable expectation that such combination would result in a successful. The composition of Lawlor is specifically called out as being “substantive” such that it is applied by an “applicator or finger”. Miranda is specifically directed to dermal application of a composition that can be used to transdermally deliver various systemic active agents; Miranda is silent on use of the disclosed delivery system to whiten tooth surfaces. Chen is applied by the Examiner merely for its disclosure of use of a dental tray. A person of skill in the art would not have been motivated to rely on the disclosure of Lawlor (which teaches application by applicator or finger) and combine it with Miranda’s teachings of polymer suitable for transdermal delivery of systemic drug and Chen’s simple use of a dental tray to arrive at the invention as presently claimed, nor would such person have had a reasonable expectation that such combination would result in a successive composition for tooth whitening.

For at least the reasons given above, it is submitted that the combination of Lawlor-Miranda-Chen does not render the claimed invention obvious. Reconsideration and withdrawal of the rejection is requested.

## **II. Rejection under 35 U.S.C. § 103(a) Over the Combination of Lawlor and Pfister**

The Examiner has rejected claims 23, 24 and 25 as being unpatentable over the disclosure of Lawlor, taken in view of U.S. Patent No. 5,232,702 to Pfister *et al.* (“Pfister”). The applicant respectfully traverses the rejection.

Pfister discloses a silicone pressure sensitive adhesive that is used in a transdermal drug delivery device. Pfister is silent as to the use of the silicone pressure sensitive adhesive with a dental tray for application to the teeth. Both Lawlor and

Pfister are silent as to tooth whitening compositions that include a hydrophobic polymer that is a condensation product of a silicone resin and an organosiloxane, wherein the polymer is comprised of about 50 to 70 parts silicone resin to 30 to 50 parts organosiloxane polymer.

The combination of Lawlor and Pfister does not render the claimed invention obvious. As discussed in part I, above, and conceded by the Examiner in the Office Action, neither reference taken alone discloses or suggests each element of the invention as claimed – they each omit different elements. Lawlor lacks at least the disclosure of a whitening composition applied with a dental tray, and Pfister lacks at least the disclosure of a composition that includes a hydrophobic polymer that is a condensation product of a silicone resin and an organosiloxane, wherein the polymer is comprised of about 50 to 70 parts silicone resin to 30 to 50 parts organosiloxane polymer. The combination of the two deficient references, as proposed by the Examiner, does not remedy the lack of disclosure.

Moreover, a person of skill in the art would not have been motivated to make the combination proposed by the Examiner nor would he have had a reasonable expectation that such combination would be successful, at least because such combination would have been missing several element of the invention as claimed.

For at least the reasons submitted above, the Lawlor-Pfister combination does not render the claimed invention obvious; reconsideration and withdrawal of the rejection is respectfully requested.

### **III. Rejection under 35 U.S.C. § 103(a) Over the Combination of Yue, Chen and Pfister**

The Examiner has rejected claims 23, 24 and 25 as being unpatentable over the disclosure of WO 01/01939 to Yue *et al.* (“Yue”), taken in view of Chen and Pfister. The applicants respectfully traverse the rejection.

Yue discloses oral care compositions that contain organosiloxane polymers and particulates that provide and appearance benefit to the tooth surface, such as talc, mica, magnesium carbonate, calcium carbonate, magnesium silicate, aluminium magnesium silicate, silica, titanium dioxide, various iron oxides, various resin powders, and silk powder. Yue teaches that other oral care agents may be added to the composition. Yue is silent, however, on dental trays that include compositions that include a hydrophobic polymer that is a condensation product of a silicone resin and an organosiloxane, wherein the polymer is comprised of about 50 to 70 parts silicone resin to 30 to 50 parts organosiloxane polymer.

The combination of Yue and Pfister does not render the claimed invention obvious. At minimum, neither references teaches or suggests a composition that includes a hydrophobic polymer that is a condensation product of a silicone resin and an organosiloxane, wherein the polymer is comprised of about 50 to 70 parts silicone resin to 30 to 50 parts organosiloxane polymer. The combination of the two deficient references as proposed by the Examiner does not remedy the lack of disclosure.

Moreover, a person of skill in the art would not have been motivated to make the combination proposed by the Examiner nor would he have had a reasonable expectation that such combination would be successful, at least because such combination would have been missing several element of the invention as claimed.

For at least the reasons submitted above, the Yue-Pfister combination does not render the claimed invention obvious; reconsideration and withdrawal of the rejection is respectfully requested.

## CONCLUSION

In view of the foregoing remarks, it is believed that the claims as currently pending are patentable over all references of record. Reconsideration and allowance of the claims at the earliest opportunity are earnestly solicited.

Respectfully submitted,

Prencipe *et al.*

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